LMP

Logistics Modernization Program

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LMP MANUFACTURING COURSE FOR CECOM

PRESENTED BY TEAM CSC

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LMP MANUFACTURING

ONE OF THE FOLLOWING 5 TOPICS

1. Forecasting and Planning
2. Remanufacturing
3. **Manufacturing**
4. Inventory Management and Purchasing
5. Budget and Finance

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AGENDA

I. Introduction

A. Overall Business Process & Supply Chain Management
B. Manufacturing Types & Product Strategies

II. Product Description and Manufacturing Process

A. Bill of Material [BOM]
B. Work Centers
C. Routings

III. Manufacturing Resource Planning Process

A. Material Requirements Planning [MRP]
B. Capacity Requirements Planning [CRP]

AGENDA - continued

IV. Inventory Management

A. Inventory Control
B. Cycle Counting
C. ABC Categories for Inventory

VI. Procurement [Requisitioning]

COURSE OBJECTIVES

Goal - To answer these questions while creating a common, consistent vocabulary:

1. What is the product/item made of? [P-BOM]
2. How is the product/item put together? [Routing]
3. How much should we make? [MRP]
4. When should we make the product/item or what is the items priority? [MRP]
5. Can we make all that is required? [CRP]

OVERALL BUSINESS PROCESS

TODAY'S MANUFACTURING FACILITY FACES...

- RAPID CHANGES IN TECHNOLOGY
- SHORTER PRODUCT LIFE CYCLES
- INCREASED CUSTOMER AWARENESS
- CHANGING CUSTOMER PRIORITIES
- SCARCE RESOURCES
- CHANGING WORK FORCE ATTITUDES
- SAFETY & ENVIRONMENTAL ISSUES

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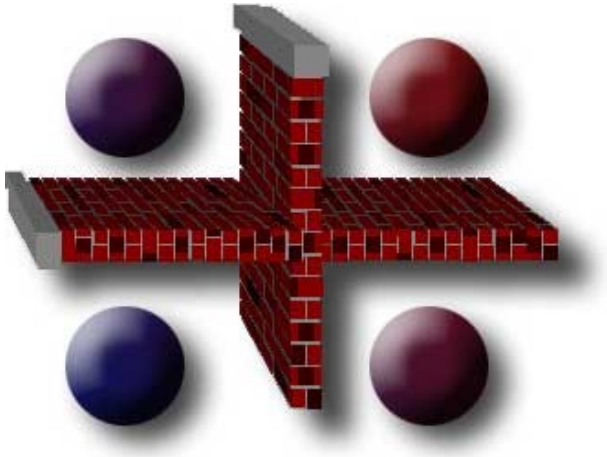
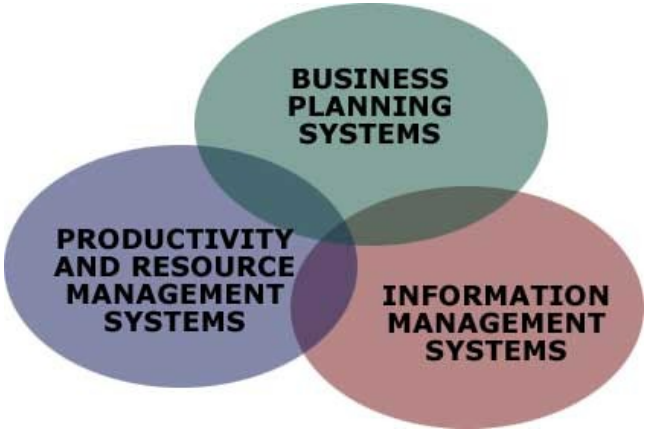
OVERALL BUSINESS PROCESS

MANAGING BUSINESS…

THE OLD WAY! (TO EACH HIS OWN)



THE NEW WAY (WHAT'S MINE IS OURS)



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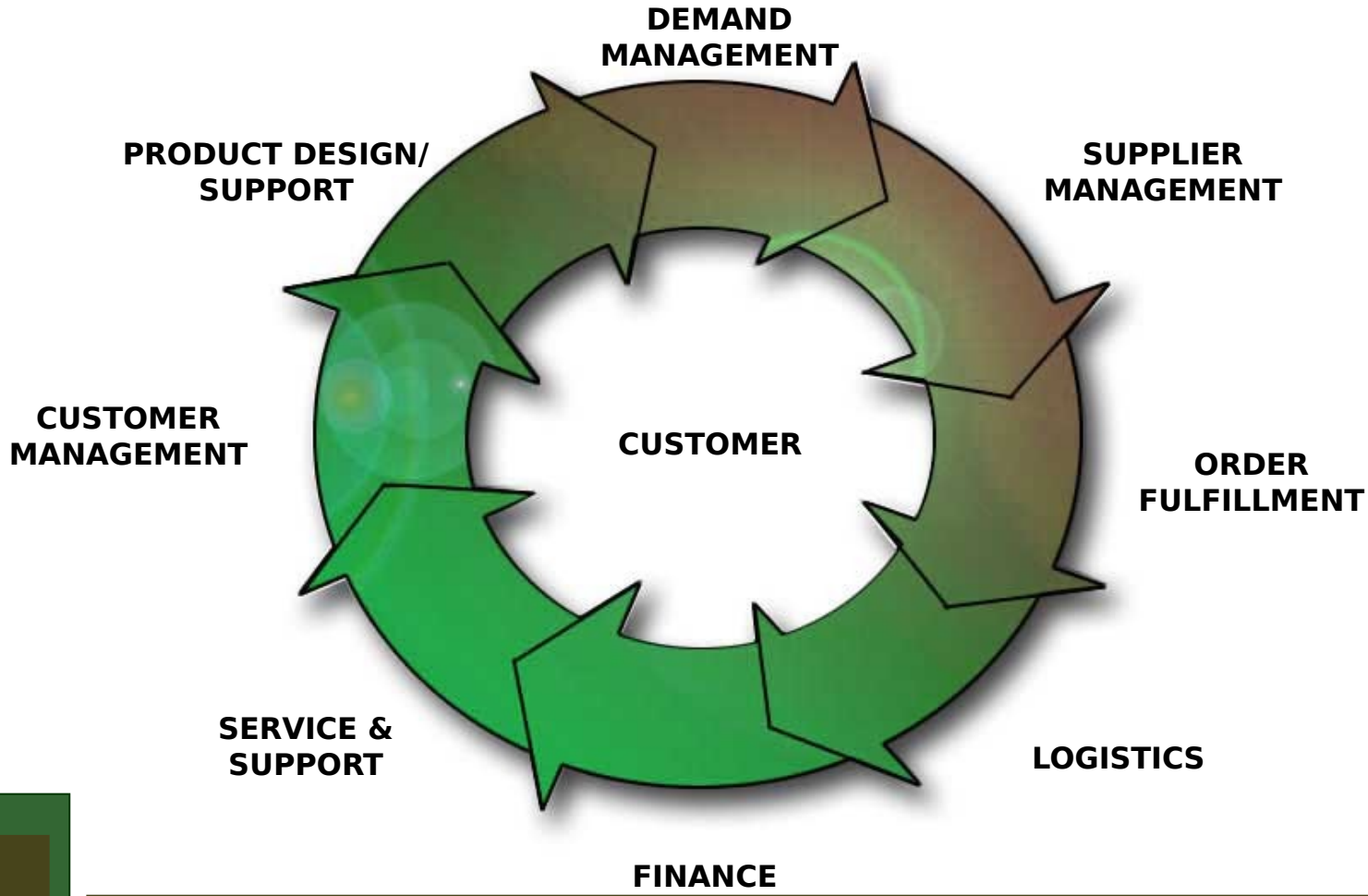
OVERALL BUSINESS PROCESS

Conventional ERP Supply Chain View



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DEFINITION OF SUPPLY CHAIN MANAGEMENT

Technical:
Supply Chain Management is a series of relationships between suppliers, customers, and service providers and the processes they use to produce a given output.

Goal:
AMC through SCM will have greater visibility to ensure that requirements (materials) needed to meet schedules/deployments/operations are delivered on time at the required quality and price.

AMC PROCESS FLOW

Suppliers

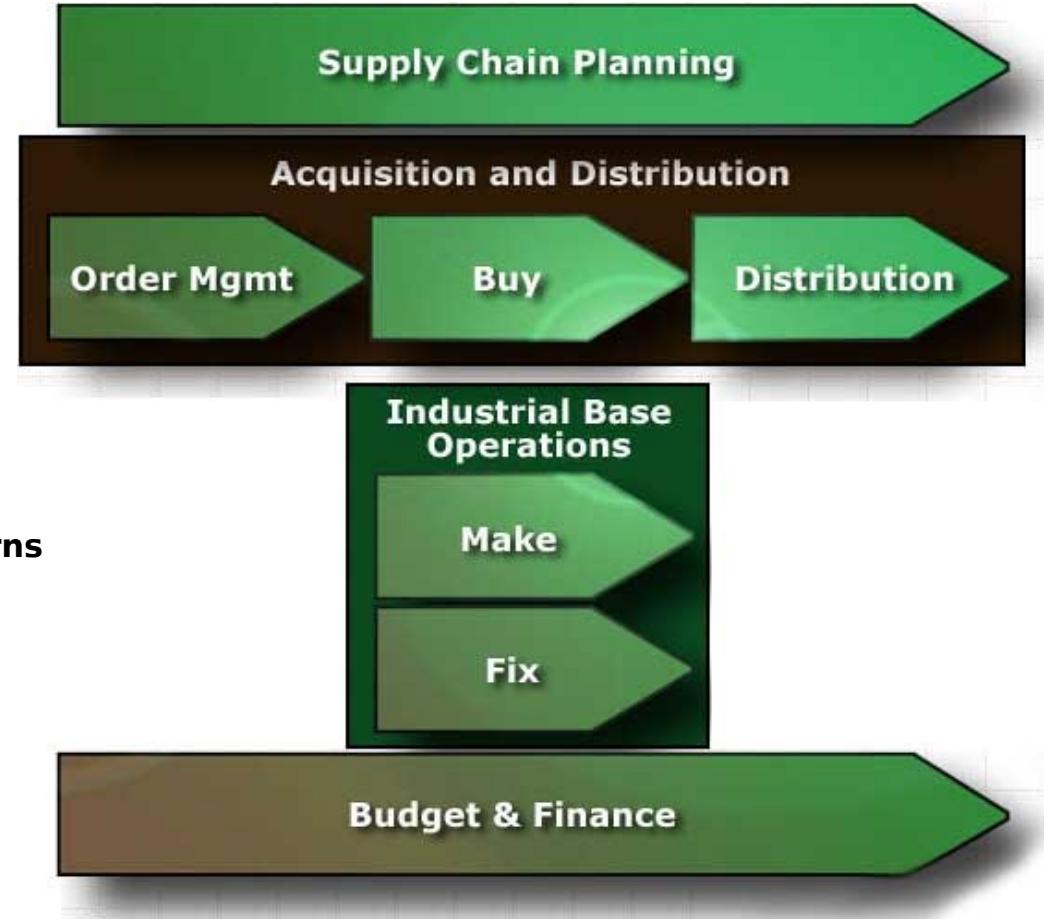
Commercial Contractors

Army Industrial Base
- Depots
- Arsenals

Other DOD
- DLA

Customer Returns

Below Depot Maintenance & Supply Support



Customers

Army

Army Reserves National Guard

Other DOD
- AF
- Navy
- Marines
- DLA

Other Government
- Federal
- State
- Local

Foreign Armed Services

Private Industry

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AMC PROCESS FLOW

Supply Chain Planning

- Demand Plan for Major & Ammo Items
- Demand Plan for Secondary Items
- Develop Supply Plan
- Develop Deployment Plan

Acquisition and Distribution

Order Mgmt → Buy → Distribution

- Internal Technical Service Orders
- External Orders (non-AMC)
- Major & Secondary Item Mfg Orders
- Munitions Mfg Orders
- Army Major & Secondary Item Overhaul Orders
- Non-Army Major & Secondary Overhaul Orders – exception only
- Munitions Overhaul Orders

- One common distribution process

Industrial Base Operations

Make

Fix

- Foreign Military
- Overhaul Orders
- Major & Secondary Items

- Munitions
- Technical Services

Budget & Finance

- Budget Formulation
- POM Formulation
- Budget Stratification
- Budget Execution

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Data

BASIC PRINCIPALS OF SUPPLY CHAIN MANAGEMENT

1. Understand the customers needs as far upstream as possible.

2. Be able to evaluate (quantitatively) and routinely measure how each activity affects overall supply chain performance.

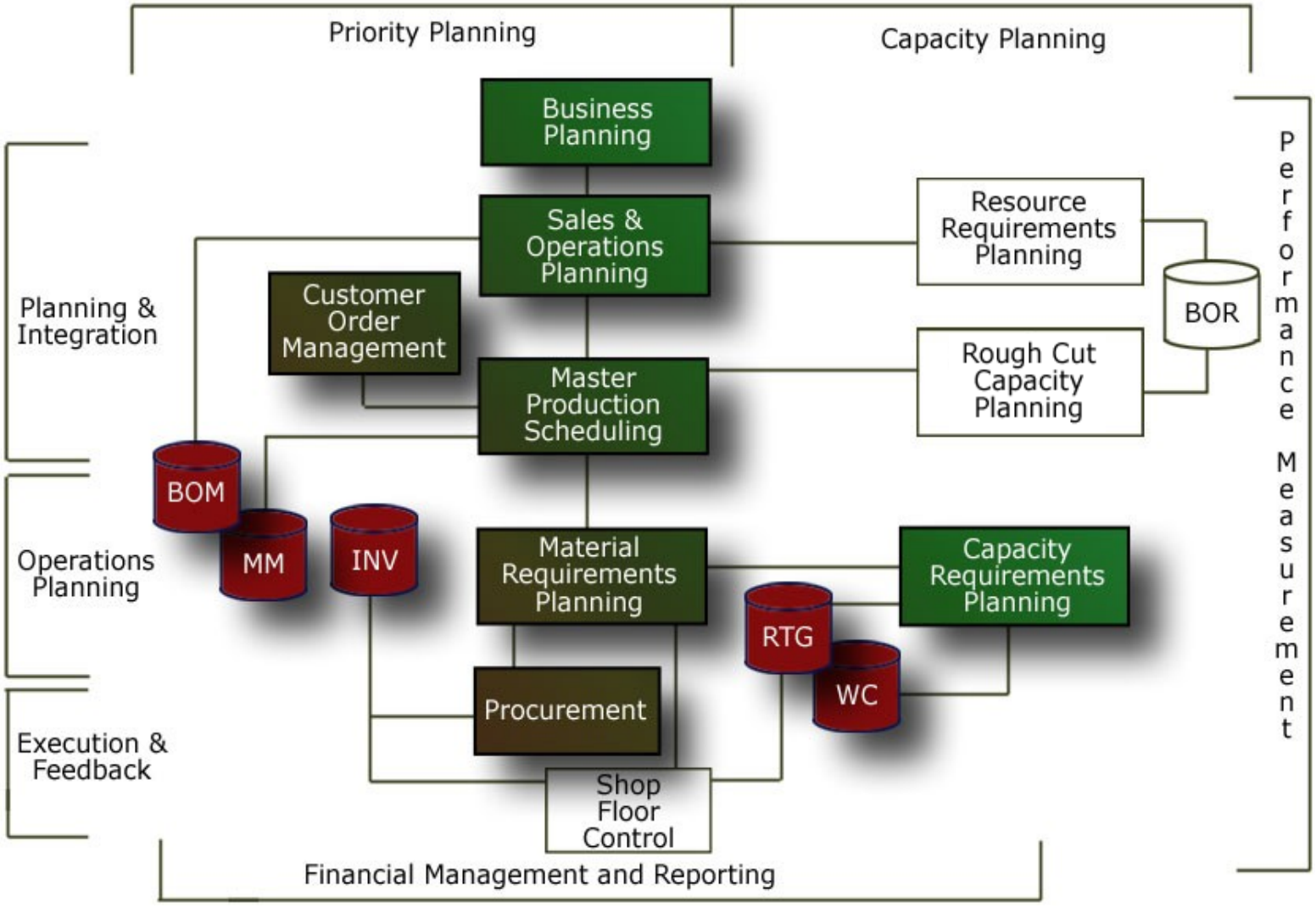
3. Build the supply chain using components (firms, functions and activities) that will make it the most effective.

4. Establish processes, systems and procedures that enable the effective and efficient operation of the Enterprise Resource Planning system.

5. Share the costs and the benefits of the Supply Chain equitably among the participants.

Principles of Supply Chain Management (A.J. Stenger, 1999)

CONVENTIONAL INTEGRATED SYTEMS METHODOLOGY



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SAP R/3 PRODUCT

Materials Management (MM)
- Purchasing
- Vendor evaluation
- Inventory management
- Invoice verification
- Warehouse management
- **Material Master**

Other Modules
- Asset Management (AM)
- Project Systems (PS)
- Human Resources (HR)
- Plant Maintenance (PM)
- Industry Solutions (IS)
- Quality Management (QM)
- Workflow (WF)
- Finance (FI)
- Sales and Distribution (SD)
- Controlling (CO)

Production Planning (PP)
- **Bill of Materials (BOM)**
- CAD interface
- **Work centers and routings**
- Sales & operations planning
- Master production scheduling
- **Materials requirements planning (MRP)**
- Configuration management
- Shop floor control
- **Capacity planning (CRP)**

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MANUFACTURING TYPES

Manufacturing Entities May Be Grouped By Type

PROCESS	DISCRETE	JOB SHOP	REPETITIVE
Characteristics • Manufacturing recipe • Continuous flow process • Large quantities at a time • Failure stops process • Lengthy setups • Fixed production process/sequence **Examples** • Jelly, Paint, Steel, Paper, Chemicals	**Characteristics** • Groups or lot sizes • Work orders • Intermittent schedules • Sequential material flow • Reasonable speeds and volumes **Examples** • Television, Cars, PC's, Clothes	**Characteristics** • Unique bill of materials and routings • Equipment / Functional specific work centers • (Ex. drilling, forging, plating, etc…) • Small production quantities **Examples** • Military aircraft, satellites, prosthetic limbs, large machine tools	**Characteristics** • Continuous manufacturing • Standardized products • Long runs (mass volume) • Fixed routings • Rate based output **Examples** • Magic markers, alternators, plastic cups, clock radios, hospital beds, automotive parts

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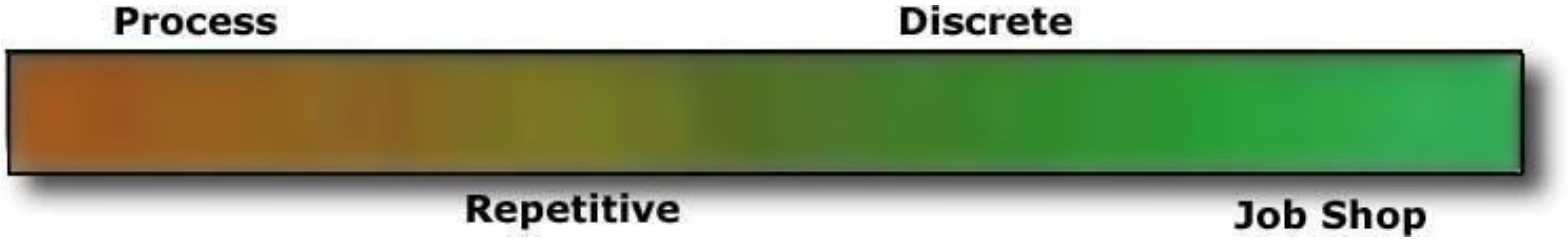
MANUFACTURING TYPES

Manufacturing Process Continuum

The manufacturing process can be thought of as a continuum of how parts and orders are handled.
In actual practice, manufactures typically have mixed modes of production throughout the operation.



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PRODUCT MANUFACTURING STRATEGIES

Product Manufacturing May Follow These Strategies

Make to Stock	Assemble to Order (Finish to Order)	Make to Order	Engineer to Order
Characteristics • Orders shipped from FG stock • Lead time = Order processing time • Products made prior to order receipt • Standard products • Sales forecast and FG inventory planning utilized **Examples** • Television, Light bulb, bicycle, calculator, watch, notebook paper, Coke, etc.	**Characteristics** • Options manufactured prior to order receipt • Lead time = Final assembly time • Components purchased or manufactured to a forecast • Planning BOM used to plan lower level component requirements • FAS used to schedule end item after order receipt **Examples** • Automobiles, hospital medical kits, cranes, network servers, stereos, etc .	**Characteristics** • End item unique to customer requirements • Lead time = cum manufacturing & purchasing time • Long lead time material ordered in advance • New or modified production process **Examples** • Furniture, glass, steel, machine tools, kitchen countertops, etc . . .	**Characteristics** • End item engineered (developed) to meet customer requirements • Lead time = product development, manufacturing and purchasing time • Long lead time to provide product to customers • Long lead time material ordered in advance • New or modified production process **Examples** • Military aircraft, ships, shuttle heatshields, satellites, etc . . .

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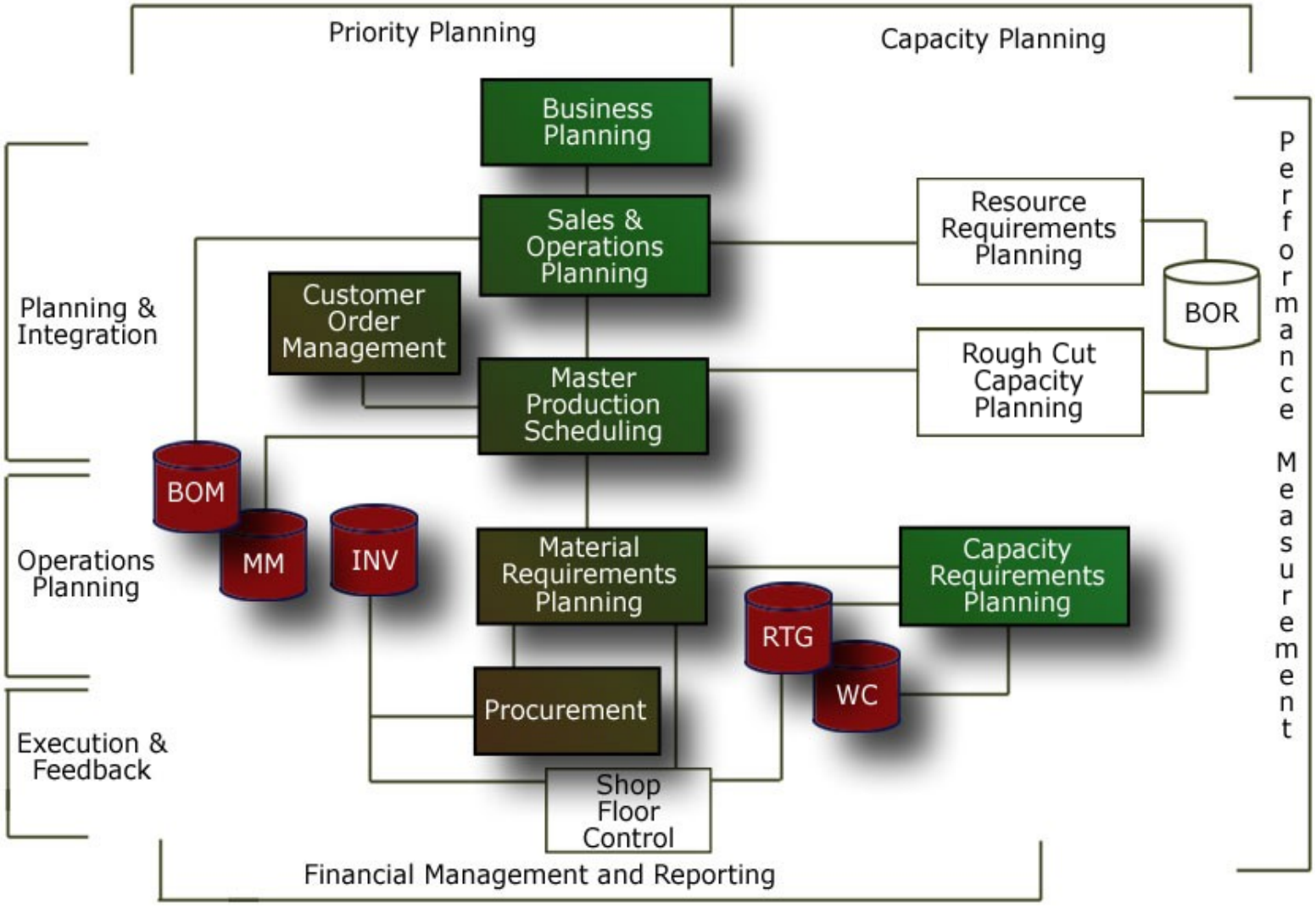
PRODUCT DESCRIPTION AND MANUFACTURING PROCESS



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BILL OF MATERIALS (BOM)

Definitions & Terminology - Material Master

NIIN, Drawing Number or Part Number

- A unique identifier
- Typically assigned if the item is:
  - Purchased
  - Manufactured
  - Stocked
- Should be short in length and non-descriptive

Example:
Part # 32467
- Disk Drive
- Size : 3.5”
- Capacity : 1.44 MB
- Vendor : Quantum
- Color : Gray

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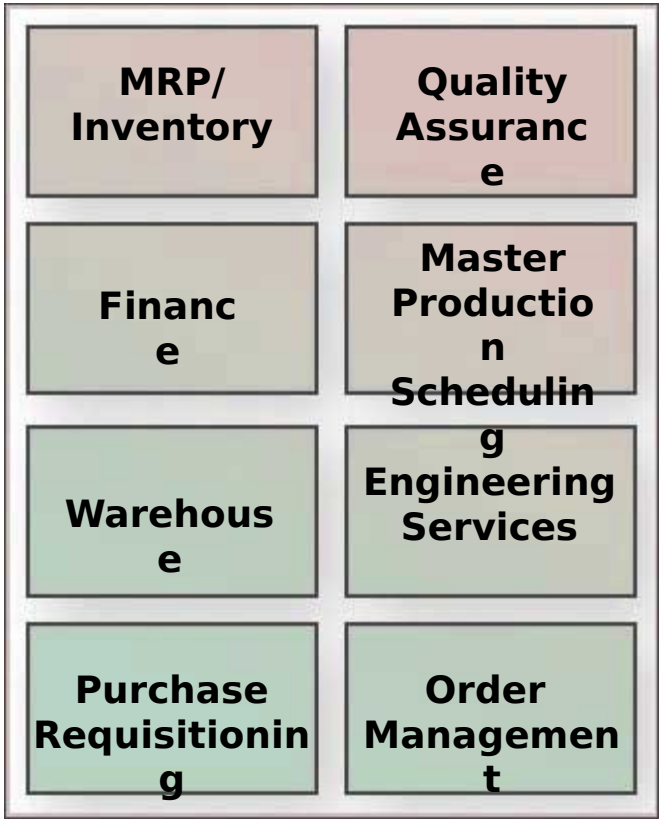
BILL OF MATERIALS (BOM)

Material Master



- A “shared” file
- Requires controlled maintenance
- Allows all users to define a single part number in their own terms
  - Inspection Requirements
    - Lead Time
  - Cost Data
  - Weights, Storage dimensions
  - Revision Numbers, Material type codes
  - Forecasting Factors

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Material Master screens

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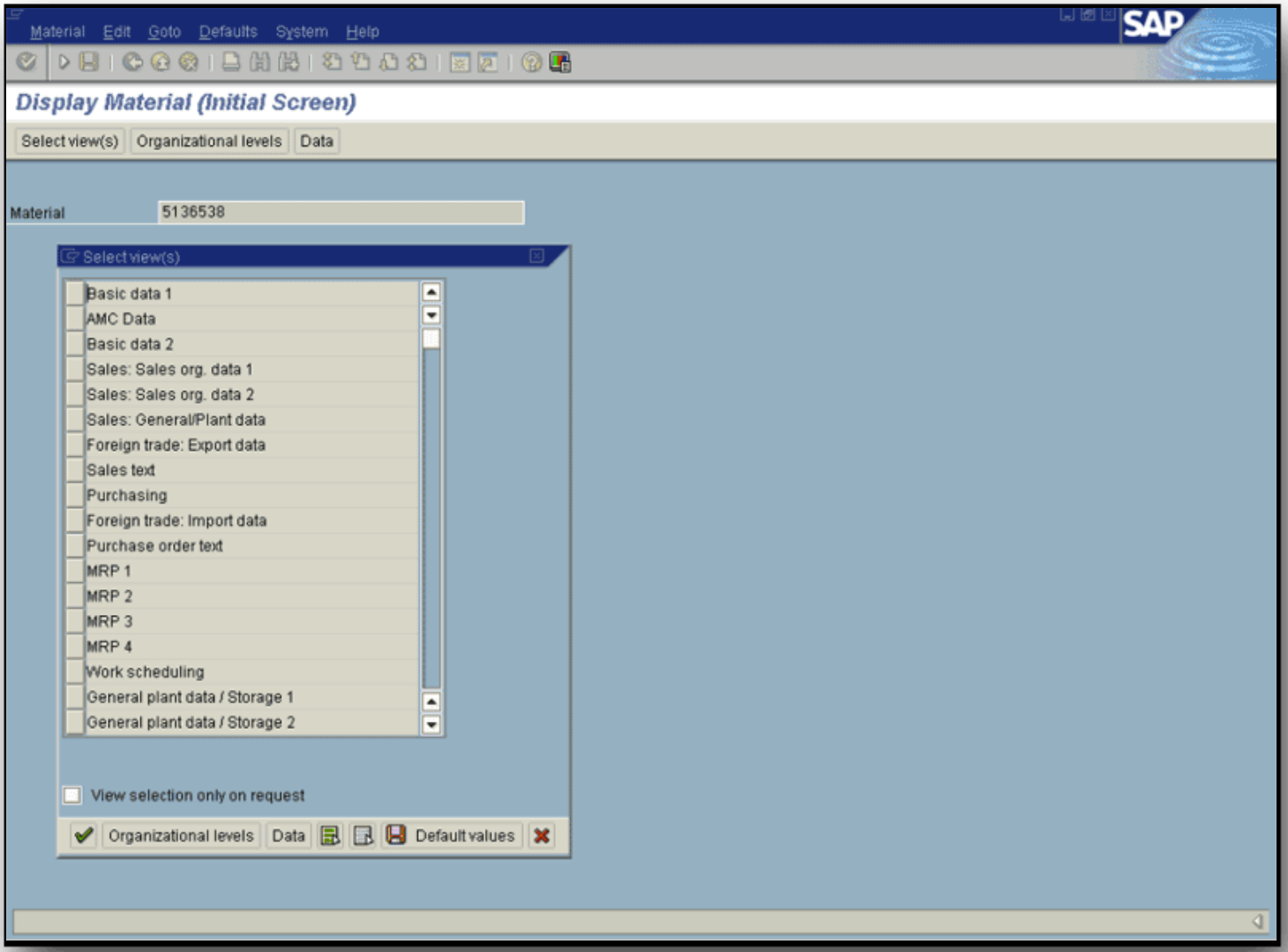
Material Master



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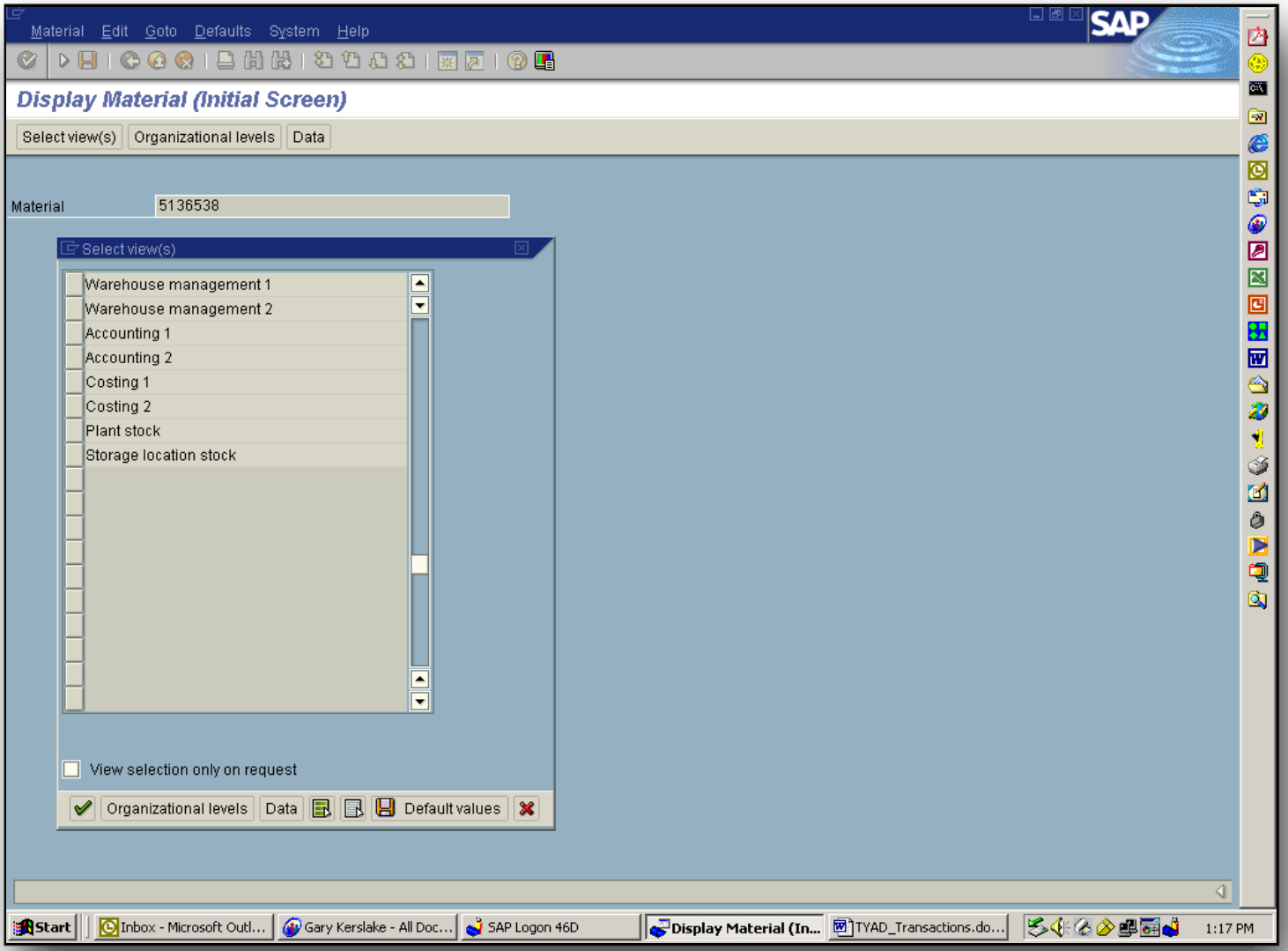
Material Master



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Material Master

Note: The "Material" number could be the Manufacturing part number if no NIIN exists. If a NIIN exists it will be the Material number with the Manufacturing number linked to the NIIN.

The "Mfr part number" is the Tobyhanna part or drawing number.

Material Edit Goto Environment System Help

SAP

Display Material 5136538 (Interchangeable part)

Additional data | Organizational levels

Basic data 1 | AMC data | Basic data 2 | Sales: Sales org. 1

Material 5136538

LAUNDRY CONTAINER

RevLev

General data

Base unit of measure	EA	each	Material group	5895	
Old material number			Ext. matl group		
Division	11		Lab./office		
Product allocation			Prod.hierarchy		
X-plant matl status			Valid from		
			GenItemCatGroup	NORM	Standard item

Interchangeability of parts

Inventory-managed manufacturer part number

External manuf.

Mfr part number 5136538

Start | Inbox ... | Amy N... | SAP L... | Displa... | Garys ... | 9:31 AM

LMP

Material Master

Material Edit Goto Environment System Help

SAP

Display Material 5136538 (Interchangeable part)

Additional data | Organizational levels

Purchase order text | MRP 1 | MRP 2 | MRP 3 | MRP 4

Material	5136538			
	LAUNDRY CONTAINER			
Plant	1201	Tobyhanna Depot DMA		
RevLev				

General data

Base unit of measure	EA	each	MRP group	
Purchasing group			ABC indicator	
Plant-sp.matl status			Valid from	

MRP procedure

MRP type	PD	MRP		
Reorder point	0		Planning time fence	0
Planning cycle			MRP controller	C01

Lot size data

Start | Inbox - ... | Amy N V... | SAP Log... | Display ... | Garys Fil... | 9:44 AM

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CSC Proprietary Data

Material Master

Material Edit Goto Environment System Help

SAP

Display Material 5136538 (Interchangeable part)

Additional data | Organizational levels

Purchase order text | MRP 1 | MRP 2 | MRP 3 | MRP 4

Plant-sp.matl status		Valid from	

MRP procedure

MRP type	PD MRP		
Reorder point	0	Planning time fence	0
Planning cycle		MRP controller	C01

Lot size data

Lot size	EX Lot-for-lot order quantity		
Minimum lot size	0	Maximum lot size	0
		Maximum stock level	0
Assembly scrap (%)	0.00	Takt time	0
Rounding profile		Rounding value	0
Unit of measure grp			

Start | Inbox - ... | Amy N V... | SAP Log... | Display ... | Garys Fil... | 9:45 AM

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CSC Proprietary Data

Material Master

Material Edit Goto Environment System Help

SAP

Display Material 5136538 (Interchangeable part)

Additional data | Organizational levels

Costing 2 | Plant stock | Stor. location stock

Material	5136538	
	LAUNDRY CONTAINER	
Plant	1201	Tobyhanna Depot DMA
RevLev		

General data

Base unit of measure	EA	each	
Current period	06 2002	Previous period	05 2002
Invent. corr. factor	0.00000		

Plant stocks in the current period

Unrestr.-use stock	3	Unrestr. consignment	0
Restricted-use stock	0	Restr. consignment	0
In quality insp.	0	Cnsgt in inspection	0
Blocked	0	Blocked consignment	0
Returns	0		

Start | Inbox - ... | Amy N V... | SAP Log... | Display ... | Garys Fil... | 10:00 AM

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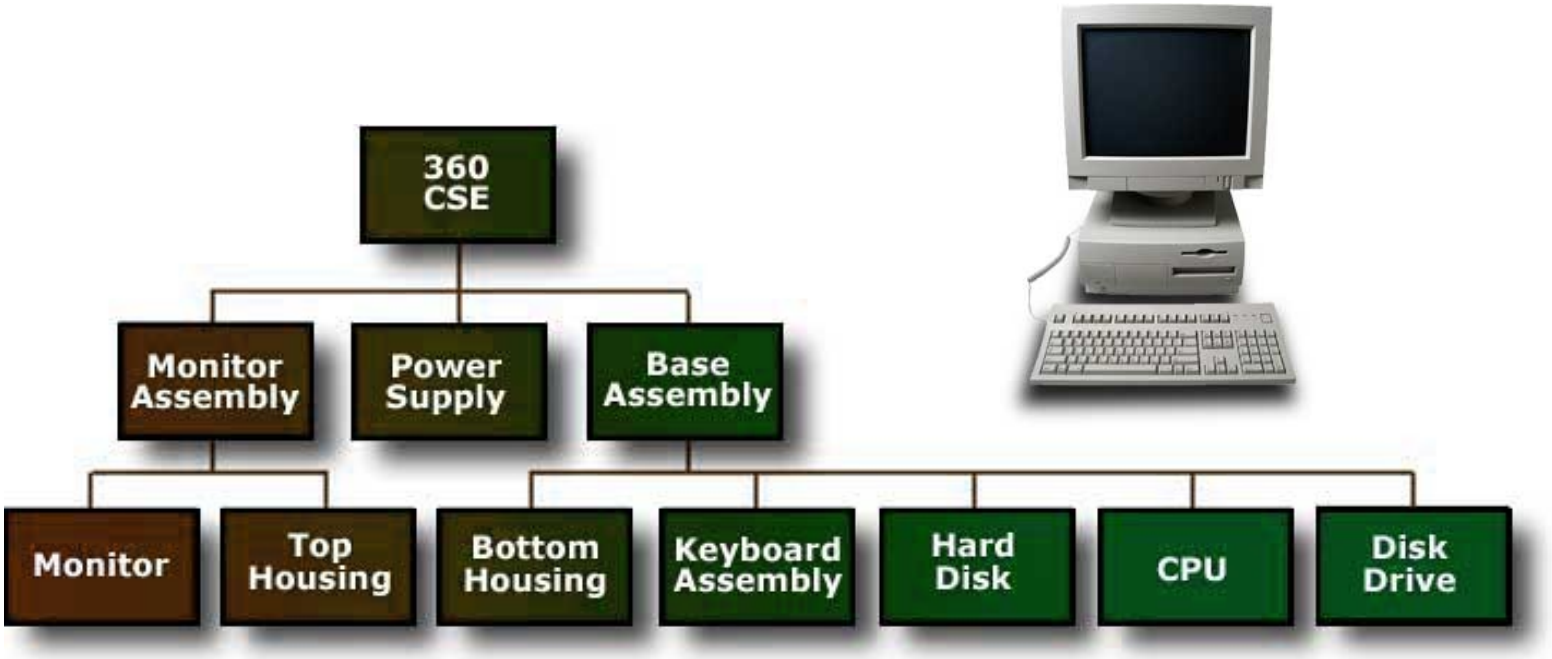
BILL OF MATERIALS (BOM)

Definitions & Terminology

The Bill of Material defines the structure of the materials, parts, and subassemblies required to make the product



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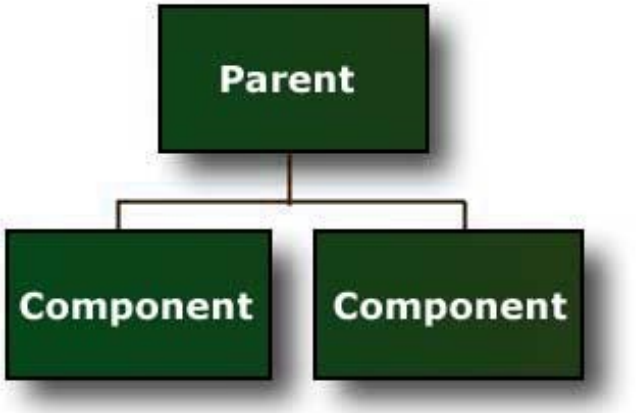
BILL OF MATERIALS (BOM)

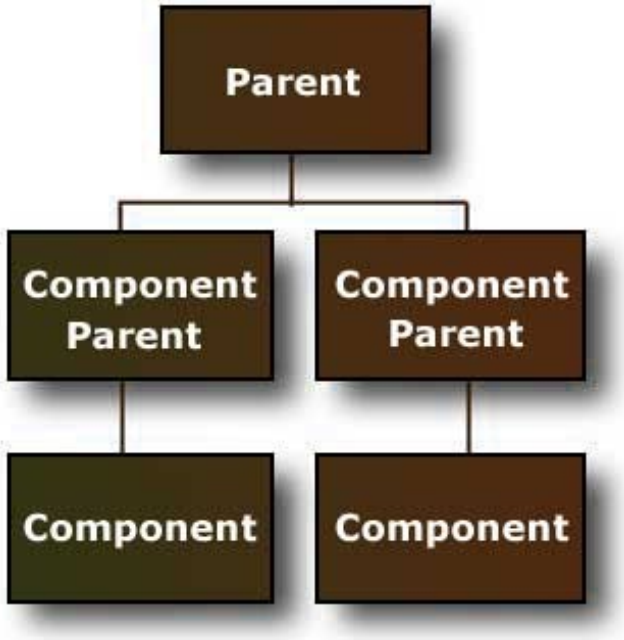
Definitions & Terminology

THE PARENT- CHILD [COMPONENT] RELATIONSHIP:

SINGLE-LEVEL BILL OF MATERIAL:



MULTI-LEVEL BILL OF MATERIAL:



Structures are created one level at a time

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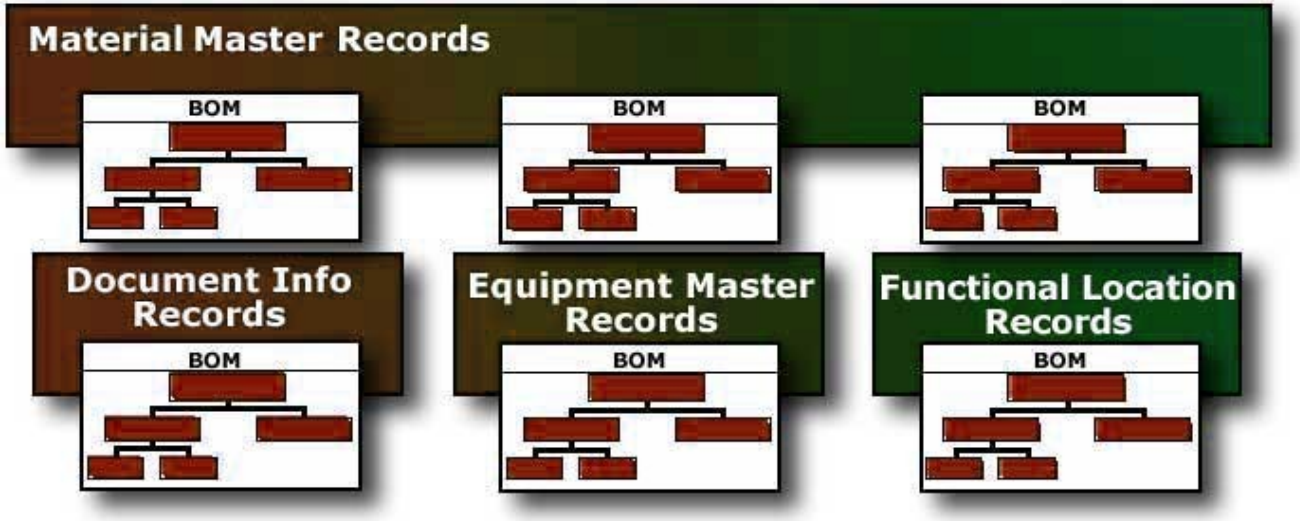
LMP BOM USAGE

- Tech Manuals
- Initial Provisioning
- War reserves
- Repair Parts and Special Tools List (RPSTL)
- Repair Long Term Planning/ Maintenance Parts Explosion and Remanufacturing Execution
- Lifecycle + Weapon System Configuration
- Long Term Planning/, Parts Explosion and Manufacturing Execution

LMP BOM DESIGN

BOM Categories.

Material BOMs are mainly used to represent the structure of items manufactured, assembled, overhauled, maintained, renovated and designed within AMC. Materials and documents can be entered as components of this BOM.



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Bill of Material [BOM] screens

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BILL OF MATERIALS (BOM)

Note: In this example, the "Plant" 1201 represents the Tobyhanna Depot DMA.
"BOM usage" equals M for Manufacturing.
"Alternative BOM" means that there is more than one BOM that can be used to manufacture this material. If you want to see how many there are, see the Alternative Overview screen [Next one].

Material BOM Edit Goto Extras Environment Settings System Help

SAP

Display material BOM: Initial Screen

Check entries | Item

Material 5136538

Plant 1201
BOM usage M
Alternative BOM 1

Effectivity
Change number
Valid from 03/28/2002
Valid to 03/28/2002

Further data
Required quantity

Start | Inbox - Microsoft Outl... | Gary Kerslake - All Doc... | SAP Logon 46D | Display material BO... | TYAD_Transactions.do... | 1:31 PM

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BILL OF MATERIALS (BOM)

Material BOM Edit Goto Extras Environment Settings System Help

SAP

Display material BOM: Alternative Overview

Item

BOM group		Plant	1201
BOM text			
Material	5136538		
	LAUNDRY CONTAINER		

Alternative BOMs

AltBOM	BOM St	DID	Alternative text	Base quantity	BUn	From lot size	To lot size	Valid
1	1			1	EA	0	0	02/2
2	2			1	EA	0	0	02/2

Position...

Start | Inbox ... | Amy N... | SAP L... | Displa... | Garys ... | 10:06 AM

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BILL OF MATERIALS (BOM)

Material BOM Edit Goto Extras Environment Settings System Help

SAP

Display material BOM: General Item Overview

Sub-items | New entries | Delete item | Header | Effectivity

Material 5136538
LAUNDRY CONTAINER
Plant 1201 Tobyhanna Depot DMA
Alternative BOM 1

Material | Document | General

Item	ICt	Component	Component description	Quantity	Un		A...	Sls	Valid from	Valid to	Change no.	P...	S
0010	L	5136617	MOUNTING PLATE RAC...	1	EA		☑	☐	02/21/2002	12/31/9999		☐	
0020	L	5136624	ELECT BOX MODIFIED A...	1	EA		☑	☐	02/21/2002	12/31/9999		☐	
0030	L	5136577	PANEL TRIM GENERAL ...	1	EA		☑	☐	02/21/2002	12/31/9999		☐	

Position... | Initial | Entry | 1 / 3

Start | Inbox - Microsoft Outl... | Gary Kerslake - All Do... | SAP Logon 46D | Display material B... | TYAD_Transactions.d... | 1:41 PM

Note: A checkmark in the "A..." column means that there is a lower level BOM.

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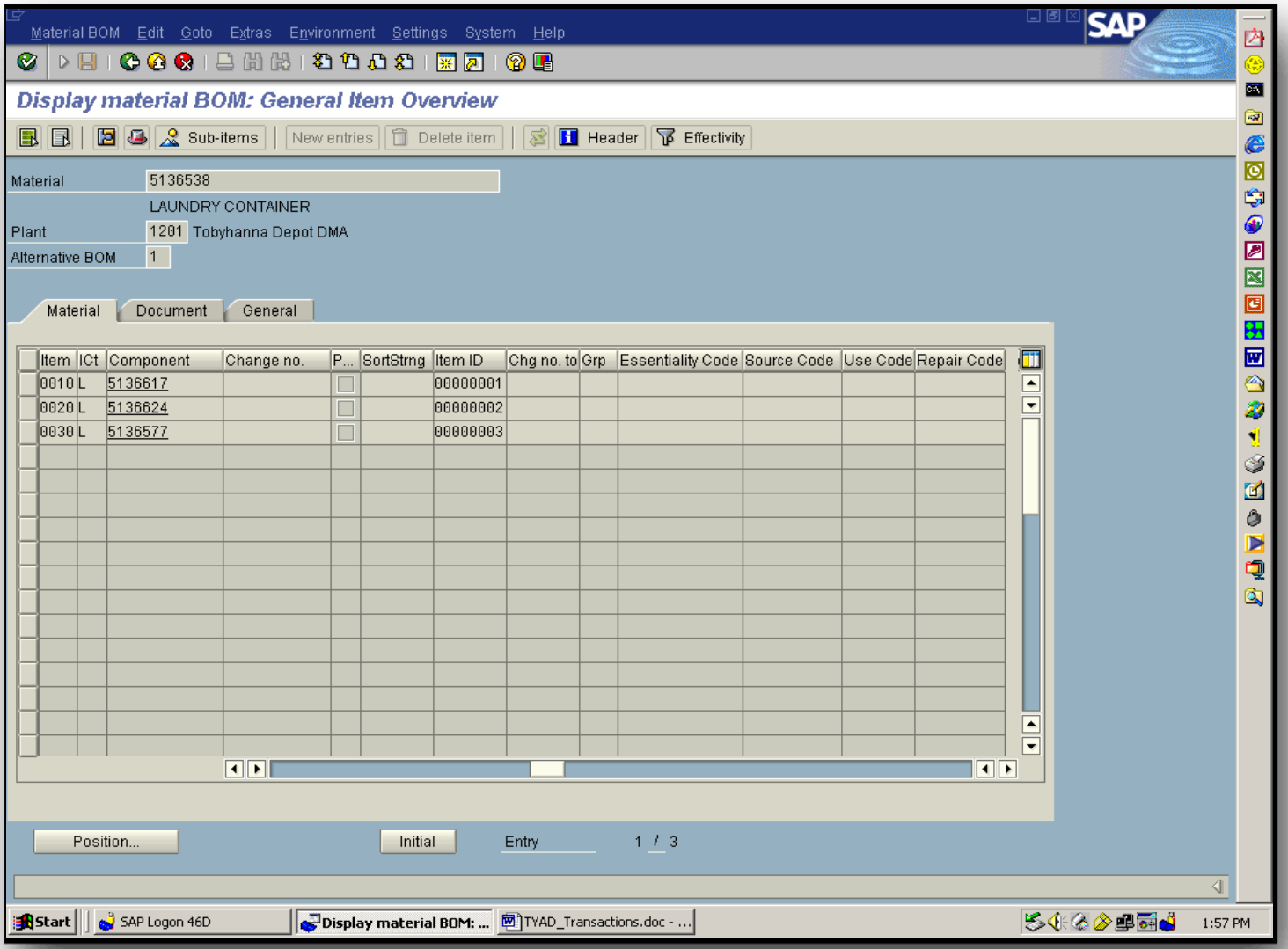
BILL OF MATERIALS (BOM)


Material BOM Edit Goto Extras Environment Settings System Help
SAP
Display material BOM: General Item Overview
Sub-items New entries Delete item Header Effectivity
Material 5136538
LAUNDRY CONTAINER
Plant 1201 Tobyhanna Depot DMA
Alternative BOM 1
Material Document General
Item ICt Component Change no. P... SortStrng Item ID Chg no. to Grp Essentiality Code Source Code Use Code Repair Code
0010 L 5136617 00000001
0020 L 5136624 00000002
0030 L 5136577 00000003
Position... Initial Entry 1 / 3
Start SAP Logon 46D Display material BOM: ... TYAD_Transactions.doc - ... 1:57 PM

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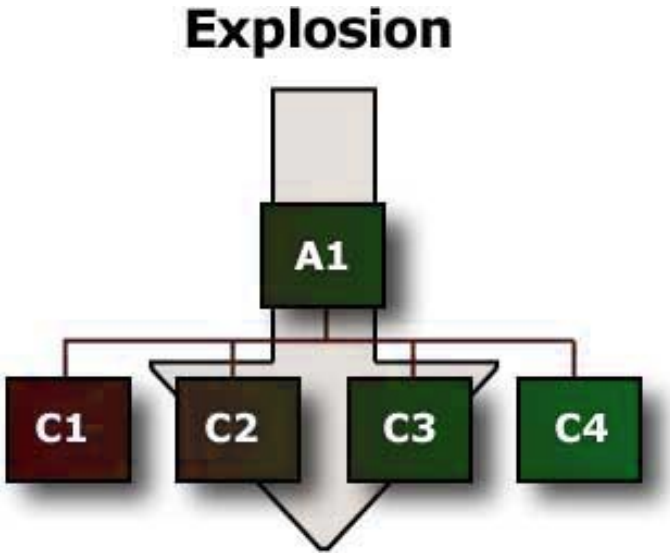
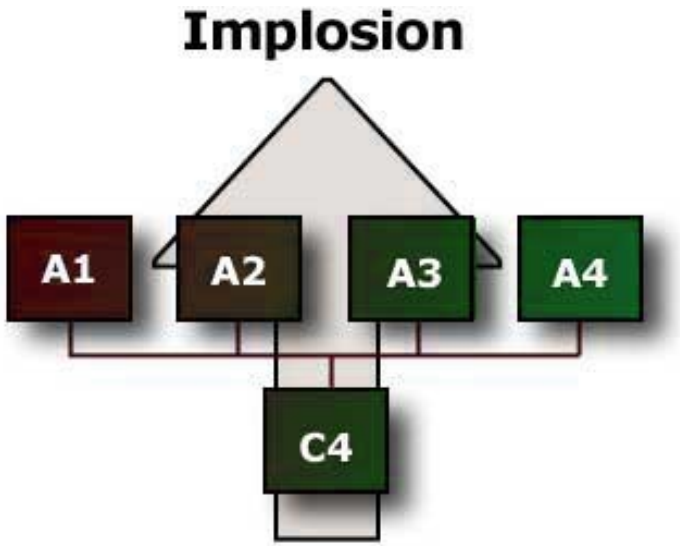
BILL OF MATERIAL

Definitions & Terminology





What's in a part

- Single/Multi Level Parts Lists/Relationships
- Cost Information

Where is it used

- Single/Multi Level Where-Used Information
- Cost Information

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BILL OF MATERIAL

Typical BOM Users and Uses

• Financial Planning & Control	Estimate Product Cost Maintain Actual Cost vs Estimate
• Quality Control & Configuration Management	Link Design Engineering, Process Planning, and Material Information to obtain an “As Built” BOM Maintain Configuration Records
• Design Engineering	Create Drawings Document Product Design
• Manufacturing Engineering & Process Planning	Create Work Instructions Add Tooling Information
• Material Planning & Control	Schedule All Parts Generate Pick Lists Maintain Ordering Information

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Summary of Bill of Material Uses

- A product is made of materials, parts, and sub- assemblies (parents & components) as described in the product's Bill of Materials.
- Different "views" of a product's BOM can be used by different groups within the manufacturing facility to meet their specific needs.
- Products, materials, parts, and assemblies all have part numbers stored in the Material Master along with information to describe them.

CSC Proprietary Data

WORK CENTERS / ROUTINGS / LEAD TIME

Definitions & Terminology

How is the product put together ?

- WORK CENTERS
- ROUTINGS
- LEAD TIME

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Definitions & Terminology

Work Center definition:

A specific production facility which consists of one or more persons and/or machines and can be considered one unit for the purposes of planning and control.
May be known as your “Cost Centers” today.

Definitions & Terminology

Work Center Guidelines:

- Group resources according to similarity of tasks -- control of the resources is critical
- Responsibility for the resource group must be clearly defined
- Resource capacity & capability must be measurable and defined
- Resource groupings must be held to a minimum for control purposes

Definitions & Terminology

Routing:

A Routing is a set of operations which describes how a particular item is to be manufactured.

- The routing lists the tasks (operations) to be performed and the sequence.
- Additional information usually provided includes:

  - inspections
  - machines
  - equipment
  - tools
  - labor grades
  - specifications
  - drawings
  - time standards

Routing screens

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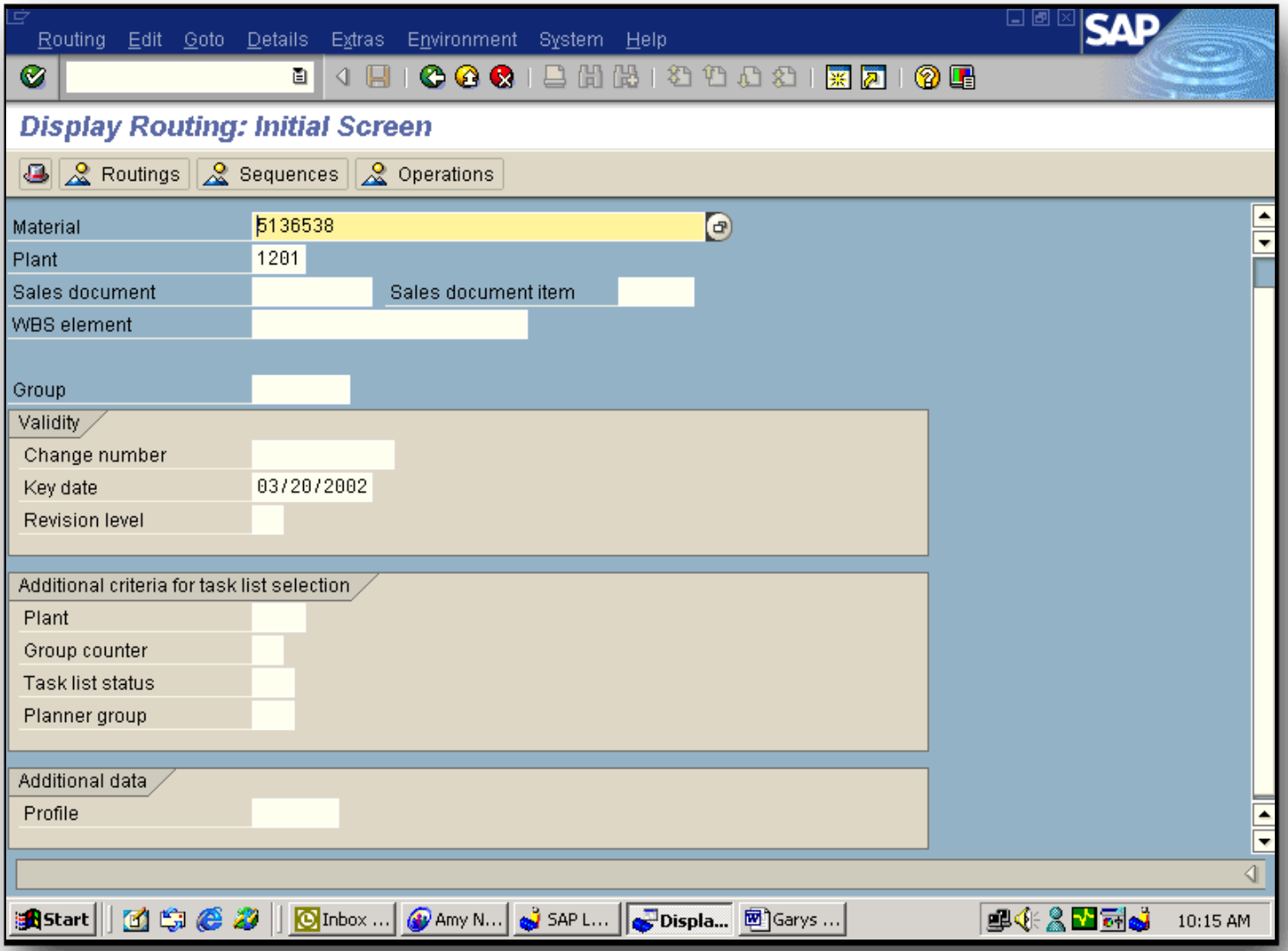
ROUTING SCREENS



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ROUTING SCREENS

Routing Edit Goto Details Extras Environment System Help

SAP

Display Routing: Header Details

Routings | MatlAssignment | Sequences | Operations | CompAlloc

Material 5136538 LAUNDRY CONTAINER

Task list

Group	50000003	
Group counter	1	LAUNDRY CONTAINER
Plant	1201	Long text exists

Production line

Line hierarchy	

General data

Deletion flag

Usage	1	Production		
Status	4	Released (general)		
Planner group				
Planning work center				
CAPP order				
From lot size	0	To lot size	99,999,999	EA
Old task list no.				

Parameters for dynamic modification/inspection points

Start | Inbox ... | Amy N... | SAP L... | Displa... | Garys ... | 10:32 AM

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ROUTING SCREENS

Routing Edit Goto Details Extras Environment System Help

SAP

Display Routing: Operation Overview

Work center | CompAlloc | Sequences | PRT | Insp. charact.s

Material 5136538 LAUNDRY CONTAINER Grp. ct. 1

Sequence 0

Operation overv.

Op...	SOp	Work ce...	Plnt	Co...	Standar...	Description	L...	Cl...	O...	P...	C...	S...	Base quantity
0010		5G200	1201	PP01		install equip							1
0020		5H200	1201	PP01		stencil and touch up container							1
0030		5G100	1201	PP01		test and inspect							1

Entry 1 of 3

Start | Inbox ... | Amy N... | SAP L... | Displa... | Garys ... | 10:15 AM

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ROUTING SCREENS

Routing Edit Goto Details Extras Environment System Help

SAP

Display Routing: Operation Overview

Work center | CompAlloc | Sequences | PRT | Insp. charact.s

Material 5136538 LAUNDRY CONTAINER Grp. ct. 1

Sequence 0

Operation overv.

Op...	SOp	U...	Setup	U...	Activit...	Machine	U...	Activit...	Labor	U...	Activit...		St...	Activit...	
0010		EA	0.0	HR		0.0	HR		250.0	HR	LBR				
0020		EA	0.0	HR		0.0	HR		25.0	HR	LBR				
0030		EA	0.0	HR		0.0	HR		10.0	HR	LBR				

Setup

Entry 1 of 3

Start | Inbox ... | Amy N... | SAP L... | Displa... | Garys ... | 10:16 AM

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Definitions & Terminology

Work Centers and Routings:

In a manufacturing setting, every part number which is manufactured needs a routing. Each routing must consist of all the work centers required to produce one unit of the item.

The process of creating routings starts with the identification of the tasks required.

Summary of Work Centers and Routings

- A product is put together during a sequence of operations performed in different work centers.
- The sequence of operations/work centers used to create a product is described by the routing.
- The routing information can include the parts from the BOM that are required at each work center and a description of the operations performed in that center.

MANUFACTURING LEAD TIME

Definitions & Terminology

In-house Production [Manufacturing Lead Time]:

The amount of time in workdays needed to produce the item in-house.

- Lead time is typically composed of multiple components:
  - move time
  - queue time
  - set up time
  - run time
  - wait time
- Adding up the lead time for the entire routing results in cumulative lead time

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Material Requirements Planning

The amount of raw materials and parts required to build the Production Schedule is determined by MRP - Material Requirements Planning.

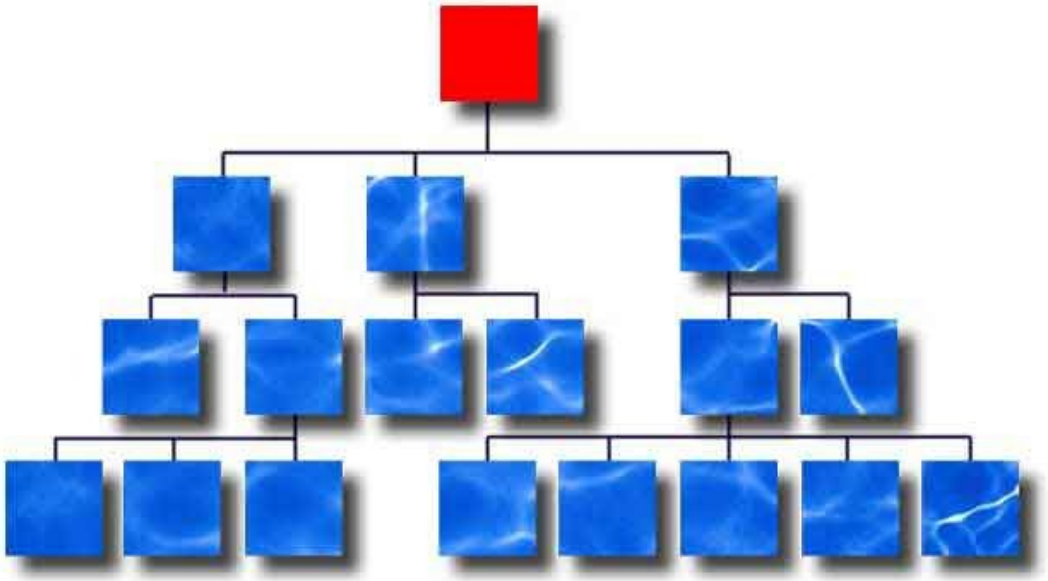
Independent demand is “exploded” through the item’s Bill of Material to determine the dependent demands for raw materials and component parts.

The requirements are then time phased based on the part’s lead time and the “output” of MRP is the Planned Order.

MATERIAL REQUIREMENTS PLANNING

Definition #1:

MRP is a set of priority planning techniques for planning component priorities typically below the product (or end item) level



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MATERIAL REQUIREMENTS PLANNING

Definition #2:

MRP is the formalization of the informal system (i.e... a computer projected shortage report).

73514

CD Multimedia Mod		JUN	JUL	AUG	SEP	OCT	NOV
47300 Speaker Kit		30	30	30	30	30	30
On Order from vendor				10			
On Hand in stores	80						
Stock Status		50	20	0	-30	-60	-90

"*What do we need to get ... and when*"

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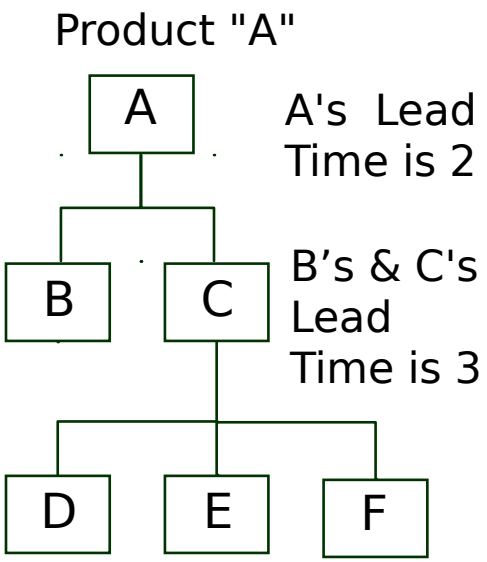
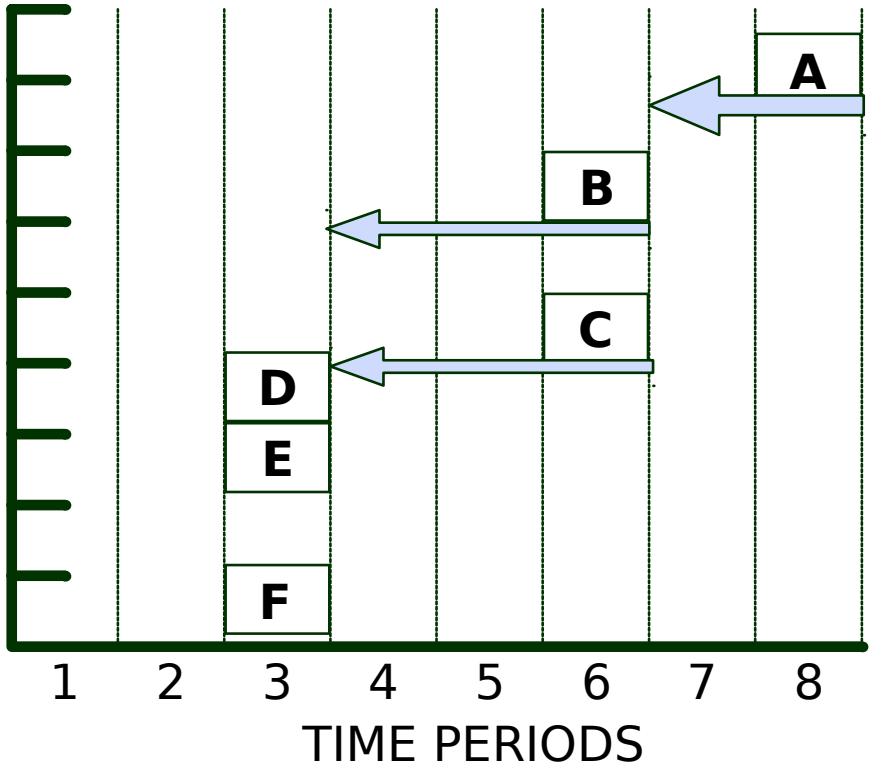
MATERIAL REQUIREMENTS PLANNING

Time Phasing:

Always looking to the future, MRP time-phases requirements and back schedules by the lead time to determine need dates





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MATERIAL REQUIREMENTS PLANNING

Time-phasing means capturing (or developing) the information on timing so as to provide answers to the following questions.

1. When will the demand actually have to be satisfied?
2. When is the quantity on order due to come in?
3. When will the stock run out?
4. When should the replenishment order be completed?
5. When should the replenishment order be released?

	1	2	3
Gross Requirements	5	5	5
Scheduled Receipts		5	
On Hand Balance 5	0	0	-5
Net Requirements			5
Planned Order Receipt			5
Planned Order Release	5		

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CAPACITY REQUIREMENTS PLANNING

The amount of product the facility can make is determined in a series of increasingly detailed steps, starting with Resource Requirements Planning, then Rough Cut Capacity Planning, and ending with Capacity Requirements Planning.

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CAPACITY REQUIREMENTS PLANNING

Identify Resources Unique to the Capacity Plan

Capacity Requirements Planning:

Identify critical resources which would inhibit the production of the item

Typical Resources:

- Skilled Labor Grades
- A Specific Machine
- A Special Tool
- Critical Purchased Components
- Critical Vendors

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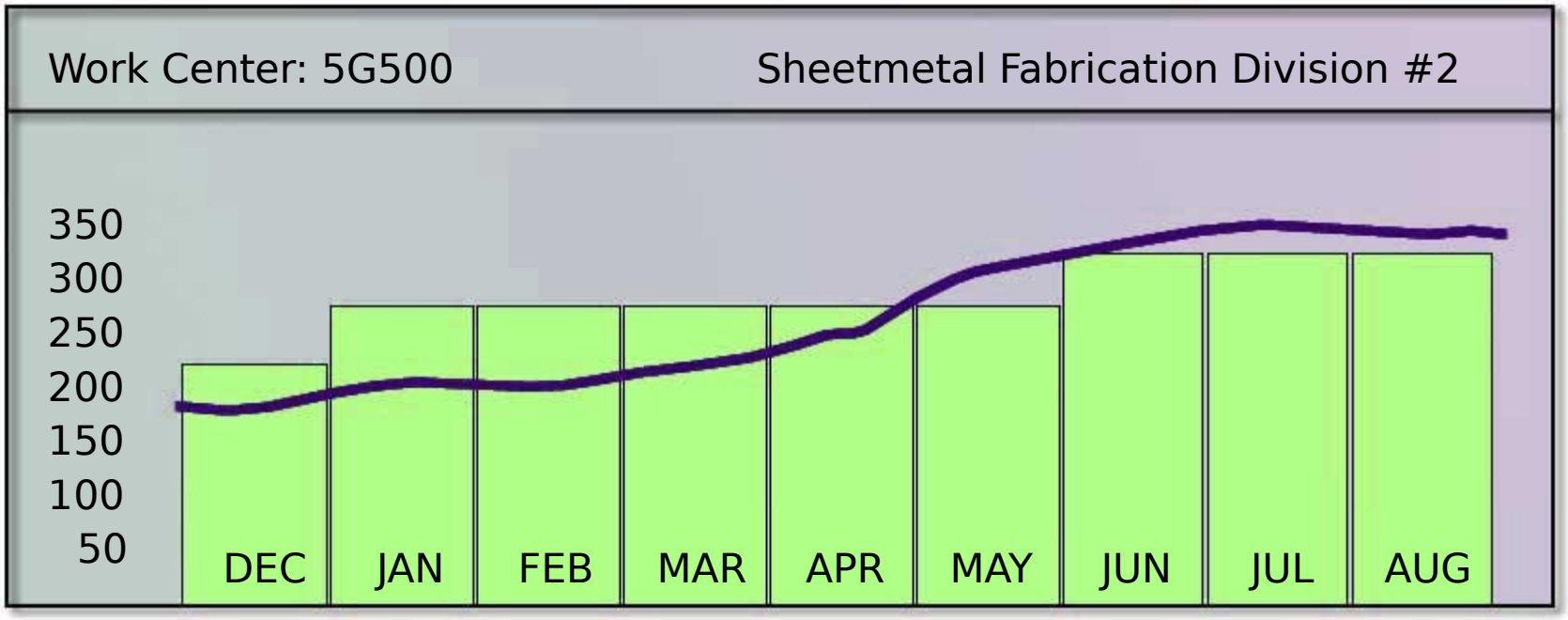
DETAILED CAPACITY REQUIREMENTS PLANNING

Compare MRP load hours [actual and planned] to demonstrated capacity and analyze the results.



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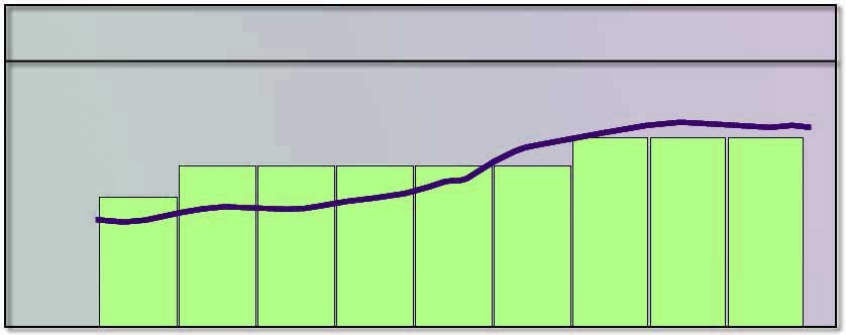
DETAILED CAPACITY REQUIREMENTS PLANNING

Does Projected MRP load equal demonstrated capacity?



Change Schedule

- Split the schedules
- Change schedule due dates (in or out)

Adjust Capacity

- Reassign resource
- Increase resource capacity
- Off load to a substitute work center

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AGENDA - continued

IV. Inventory Management

A. Inventory Control
B. Cycle Counting
C. ABC Categories for Inventory

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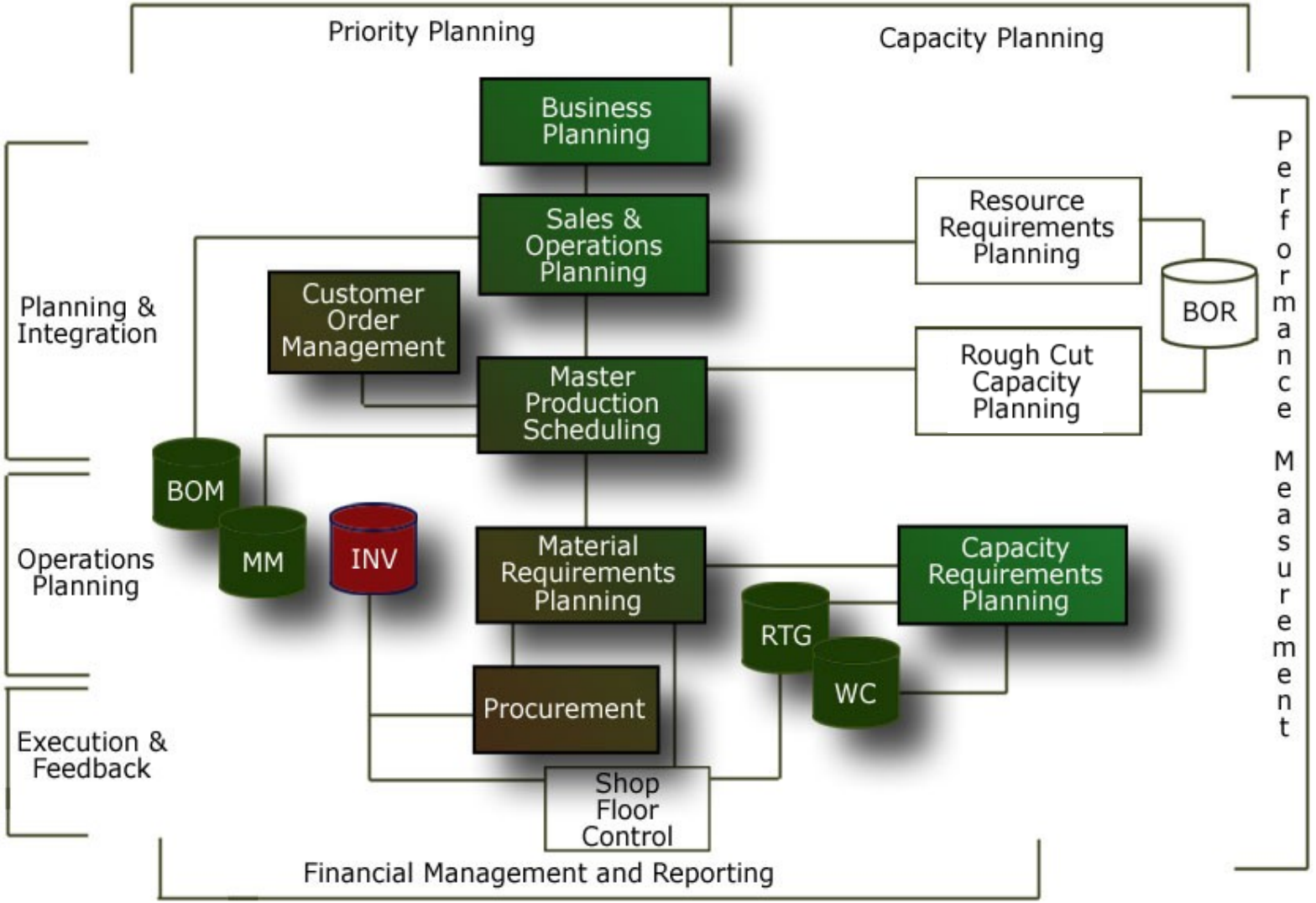
INVENTORY MANAGEMENT



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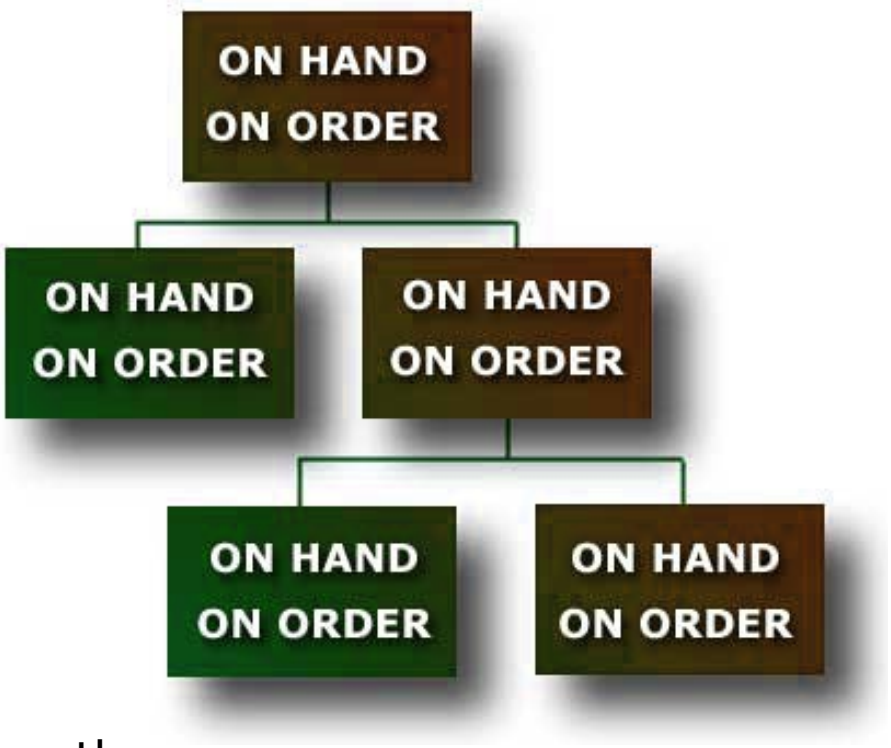
INVENTORY ACCURACY

An MRP system can be thought of as a set of logically linked records

The Product Structure File provides the scheduling framework

The Material Master provides the scheduling parameters



Accurate inventory records are the foundation of an MRP system

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INVENTORY ACCURACY

Inaccurate Inventory Records Can Result In:

- Shortages
- Excesses
- Missed Schedules
- Low Productivity
- Late Delivery
- Excess Expediting
- Excess Costs

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INVENTORY ACCURACY

Causes of Inventory Discrepancies :

- Systems (rare but possible)
- Processes
- Procedures

Solution to Problem :

- Education & Training
- Adherence to Procedures
- Reconcile actual inventory to system inventory

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INVENTORY MANAGEMENT – CYCLE COUNTING

- Cycle Counting is a tool which is used to measure inventory accuracy and assist in maintaining record accuracy.
- Cycle Counting is a method by which a "snap shot" is taken of a part/location combination at a point in time.
- The purpose of Cycle Counting is to:
  - find records which are in error
  - determine the source(s) of the error(s)
  - take corrective action

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INVENTORY MANAGEMENT

Classical ABC Stratification of Inventory

- Based on Pareto's Law (the 80/20 rule)
- An arbitrary stratification of inventory for purposes of valuation and control

A = HIGH VALUE CONSUMPTION

B = MEDIUM VALUE CONSUMPTION

C = LOW VALUE CONSUMPTION

AGENDA - continued

VI. Procurement [Requisitioning]

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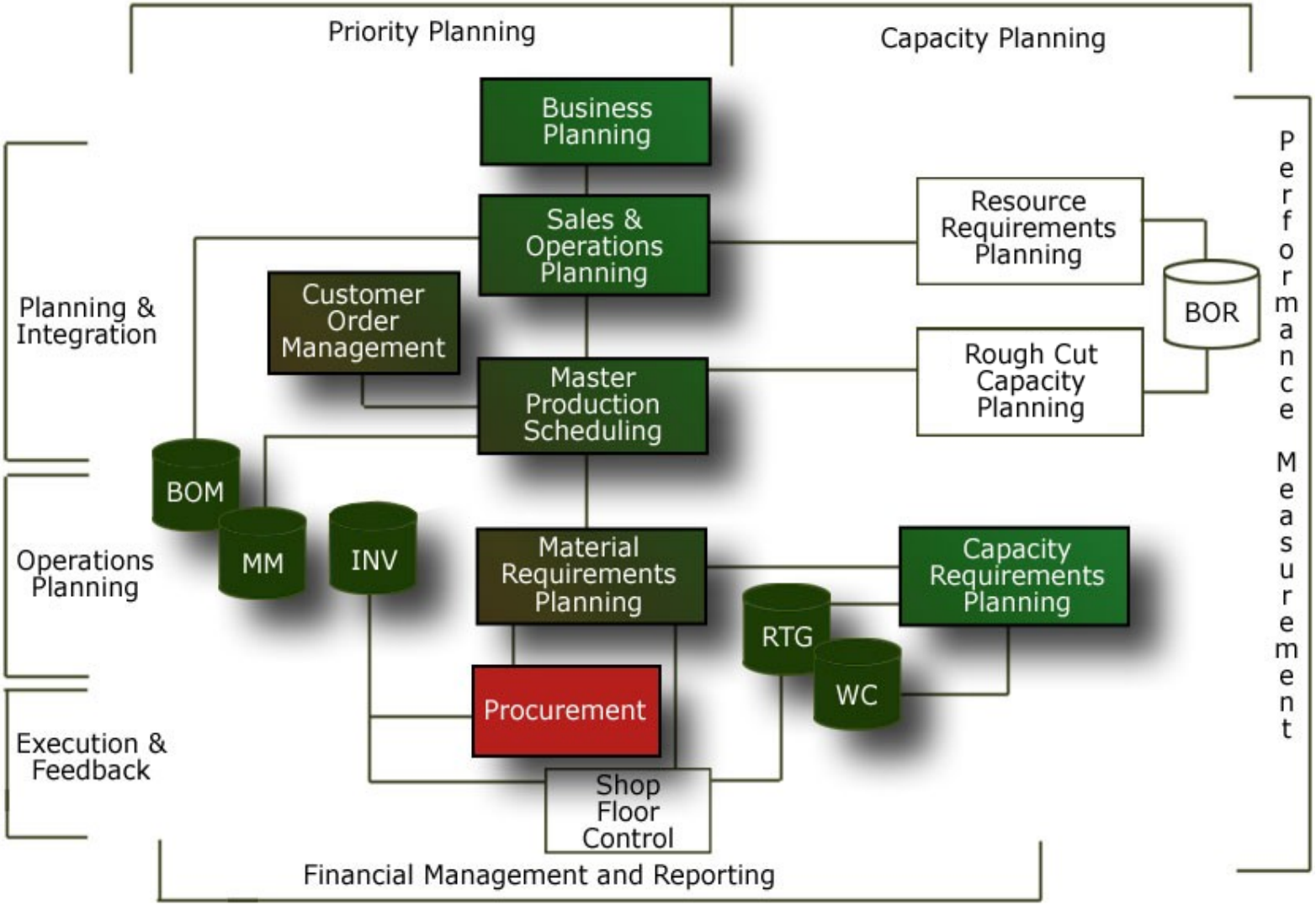
PROCUREMENT



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PROCUREMENT

“What do we need to get and when ?”

Purchase Requisitions placed

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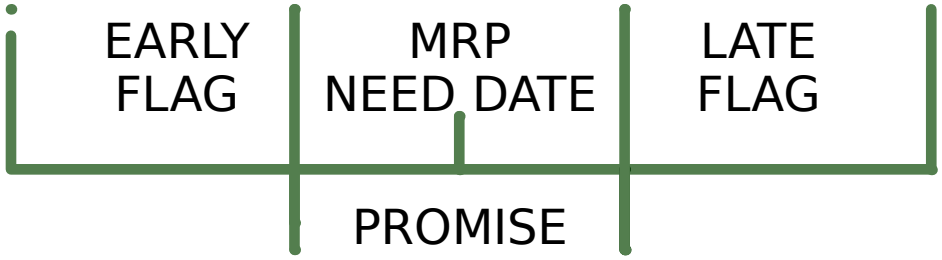
PROCUREMENT PROCESS

The power of MRP - keeping the vendor promise dates in sync with manufacturing need dates



The system constantly monitors need dates relative to the promise dates

- MRP action messages are sent to the Buyer/Planner
- Buyer/Planner decides what to do and updates system

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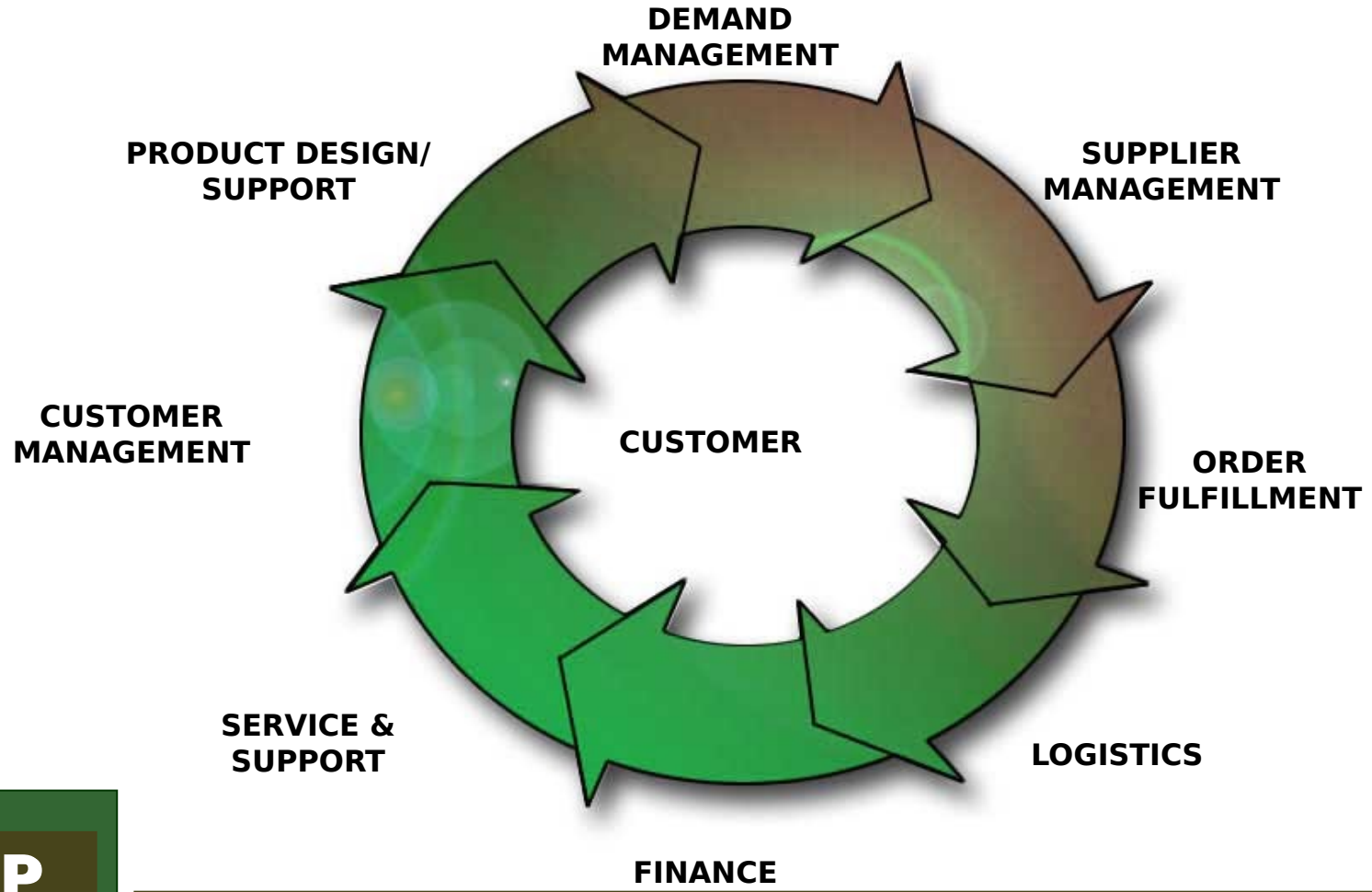
OVERALL BUSINESS PROCESS

Conventional ERP Supply Chain View



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OVERALL BUSINESS PROCESS

SOLID TEAM OBJECTIVES PRODUCE THE DESIRED RESULTS

AMC and the MANUFACTURING
FACILITY OBJECTIVES

INVENTORY INVESTMENT	CUSTOMER SERVICE	MANUFACTURING COSTS	WINNER
↓	↑	↓	**ALL OF US**

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Logistics Modernization Program

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Thank You!